

November 3, 1952

Dr. L. Dienes  
Massachusetts General Hospital  
Boston 14, Mass.

Dear Dr. Dienes:

As you may be already well aware, I will have an opportunity shortly to discuss with you some of the questions mentioned in your letter of September 12. I will be speaking Friday, November 14 to the meeting of the Northeast Branch of the S.A.B., and hope very much to see you there.

Of course we were very much influenced by your and Klieneberger's work on L-forms, from several points of view. I am still not sure whether they may play some role in the "filtrability" of bacteria in phage-treated cultures. We have not made a systematic study of this, and cannot assess its significance, but our routine observations certainly have shown that the frequency of "come-backs" is much higher in phage-treated filtrates, (containing FA) than in filtrates from ordinary broth. However, it seems almost certain that FA itself is phage, and not the more organized particles of "L-forms". The genetic activity of FA would also be difficult to reconcile with the L-form hypothesis, as I was already uncomfortably aware at the 1951 Cold Spring Harbor Conference (cf. p. 439, right column, 4th par.). Still we have to contend with your irrefutable observations-- concerning which Klieneberger's final retraction of her conflicting hypothesis must convince any skeptic. I agree that the small forms must have some biological importance, and hope we will have an opportunity to speculate together on this.

I have not lately paid much attention to the L-form problem, having been preoccupied with more specifically genetic questions in *E. coli* recombination and *Salmonella* transduction. We never did succeed in growing out the L phase, but must admit that we did not press the question. Would it be convenient for you to have on hand about November 14 some active cultures of L-type from *Salmonella*, or lacking that, from *Proteus* so that I could get a better impression of what we must look for? For recombination experiments, the existing serological differentials between, e.g., *S. typhimurium* and *S. typhi* should do very well, but it will be essential to rule out phage-transduction, which can give similar results. I will be very happy to discuss or cooperate with you in any way that I am able.

Yours sincerely,

Joshua Lederberg